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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,168	12/05/2000	Jun Takahashi	108053	6589
7590 04/14/2004			EXAMINER	
Oliff & Berridge PLC P.O. Box 19928 Alexandria, VA 22320			SHEWAREGED, BETELHEM	
			ART UNIT	PAPER NUMBER
			1774	
DATE MAILED: 04/14/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/729,168

Applicant(s)

TAKAHASHI ET AL.

Examiner

Betelhem Shewareged

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,7 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's response along with Request for Continued Examination (RCE) has been fully considered.
2. Claim 8 is added, and claims 1, 2, 7 and 8 are pending.

Claim Rejections - 35 USC § 103

3. Claims 1, 2, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamoto et al. (US 6,139,940) in view of Asano et al. (EP 0 818 322 A1).

Iwamoto discloses an ink jet recording sheet having a substrate, an ink absorbing layer onto the substrate, and an ink permeable layer onto the ink absorbing layer (abstract). The substrate may be transparent (col. 2, line 56). The ink permeable layer comprises inorganic pigments and a resin (col. 2, line 35), wherein the ink permeable layer has a weight ratio of binder to inorganic pigments of 10:5, which is within the claimed range (Example 4). Examples of the resin are acrylic, polyester, polyurethane, styrene-butadiene, vinyl acetate, vinyl chloride, and polyvinyl butyral (col. 2, lines 40-46). Iwamoto fails disclose a resin having a glass transition temperature as claimed.

Asano teaches an ink jet recording sheet having a substrate, an ink receiving layer on the substrate, and a gloss layer on the ink receiving layer (page 3, lines 5-8). The ink receiving layer is equivalent to the claimed ink absorbing layer, and the gloss layer is equivalent to the claimed ink permeable layer. The gloss layer comprises a pigment and a resin, and is porous and ink permeable (page 5, line 43-46). The resin has a glass transition temperature of 40°C or more, preferably 50-100 °C (page 6, line

36). Examples of the resin are polyvinyl alcohol, acrylic, polyurethane, vinyl acetate, vinyl chloride, and acrylamide (page 5, line 56 thru page 6, line 10).

Iwamoto and Asano are analogous art because they are from the same field of endeavor that is the ink jet recording art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the ink permeable layer of Asano with the invention of Iwamoto in order to optimize the porosity of the gloss layer which in turn controls the ink absorbing properties of the layer (page 6, lines 36-44 of Asano).

With respect to the hardness value it is elementary that the mere recitation of newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to those things to distinguish over the prior art. *In re swinehart et al.*, 169 USPQ 226 at 229. Since the Asano reference teaches Applicant's claimed compositional limitations of the ink permeable layer, it is inherent that the reference gloss layer function in the same manner claimed by Applicant. The burden is upon Applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

Response to Arguments

4. Applicant's argument is based on that Iwamoto does not include an ink permeable layer, instead Iwamoto discloses an ink **im**permeable layer, and Asano teaches ink permeable gloss layer. Therefore, one skilled artisan would not expect that an element of an ink permeable layer should be employed in an ink impermeable layer.

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Applicant's argument has not been found persuasive for the following. Even though Iwamoto discloses an ink impermeable layer, this layer of Iwamoto does not absorb ink (col. 1, line 65), therefore, the Examiner interprets that the ink is being transported to the next layer, which is the ink absorbing layer. Asano teaches a porous gloss layer which allows the ink to be transported to the ink receiving layer (page 5, line 45). Both Iwamoto and Asano teach a layer that transports ink to the next layer such as ink absorbing layer or ink receiving layer, therefore, one of ordinary skill in the art would have been motivated to combine the teachings of Iwamoto and Asano, and a *prima facie* case of obviousness has been made.

For the above reason, the claims 1, 2 and 7 stand rejected, and claim 8 is also included in the rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 571-272-1529. The examiner can normally be reached on Mon.-Thur. 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'B. Shewareged', with a stylized flourish at the end.

Betelhem Shewareged
April 8, 2004.